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Remedial Action Contract

Final Community Engagement Plan

Cidra Groundwater Contamination Site
Remedial Investigation/Feasibility Study
Cidra, Puerto Rico

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687642

CDM Smith

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Acronyms

ATSDR	Agency for Toxic Substances and Disease Registry
bgs	below ground surface
CCC	Cidra Convention Center
CERCLA	Comprehensive, Environmental Response, Compensation, and Liability Act of 1980
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CIC	community involvement coordinator
CEP	community engagement plan
CEPD	Caribbean Environmental Protection Division
Cis-1,2 –DCE	cis-1,2-dichloroethylene
CCL	CCL Laber de Puerto Rico
EPA	United States Environmental Protection Agency
ESI	Expanded Site Inspection
°F	degrees Fahrenheit
FS	feasibility study
HRS	hazard ranking system
MCL	maximum contaminant level
mgd	million gallons per day
NCP	National Contingency Plan
NPL	National Priorities List
OSWER	Office of Solid Waste and Emergency Response
PCB	polychlorinated biphenyls
PCE	perchloroethylene
PRASA	Puerto Rico Aqueduct and Sewer Authority
PRDOH	Puerto Rico Department of Health
PREQB	Puerto Rico Environmental Quality Board
PSA	Public Service Announcement
RD/RA	remedial design/remedial action
REAC	response engineering and analytical contract
RI	remedial investigation
RI/FS	remedial investigation/feasibility study
ROD	record of decision
RPM	remedial project manager
RS	responsiveness summary
SARA	Superfund Amendments and Reauthorization Act of 1986
SAT	site assessment team
SVOC	Semivolatile Organic Compound
SSO	sanitary sewer overflow
TAG	Technical Assistance Grant
TAT	Technical Assistance Team
TCE	trichloroethylene
TS	Treatability Study
TSP	Trisodium Phosphate

USGS	United States Geological Survey
VOC	volatile organic compound

Section 1
Overview of the Community Engagement Plan

1.1 Introduction

The U.S. Environmental Protection Agency (EPA) has prepared this Community Engagement Plan (CEP) to identify efforts EPA will take to inform and involve the community in major decisions regarding investigation and cleanup activities at the Cidra Groundwater Contamination Site (the Site) in Cidra, Puerto Rico. The Site consists of a groundwater plume with two identified potential sources of contamination. Figure 1-1 is the Site Location Map and Figure 1-2 is shows the locations of the groundwater wells. Puerto Rico Department of Health (PRDOH) ordered the following four public supply wells in Cidra to be closed due to contamination by tetrachloroethylene (PCE): Cidra Well 4 (Calle Padilla Final) in March 1996; Cidra Well 8 (Frente al Cementerio) in October 1996; Cidra Well 3 (Planta de Alcantarillado) in February 1999; and Cidra Well 6 (Calle Baldorioty) in August 2000. Other chlorinated volatile organic compounds (VOCs), including 1,1-dichloroethylene (1,1-DCE) and trichloroethylene (TCE), were also detected in the wells before they were closed.

In January and February 2003, the Region 2 Site Assessment Team (SAT) investigated 12 industrial sites around the Cidra area that could be potential sources of groundwater contamination. SAT used field screening technology and laboratory confirmatory analyses of soil samples. Contamination was not documented from surface soils through the intervening soil layers to the groundwater at any of these potential sources. Based on these results, there was insufficient information to conclusively determine the source of contamination of the local drinking water supply wells.

On July 22, 2004, the Site was published in the Federal Register on the Superfund National Priorities List (NPL). As a result, EPA initiated a comprehensive evaluation at the Site. CDM Federal Programs Corporation (CDM Smith), on behalf of EPA, initiated a remedial investigation/feasibility study (RI/FS) for groundwater in 2007. The overall purpose of the RI/FS is to identify potential source areas through soil and groundwater investigations, evaluate the nature and extent of groundwater, soil, surface water and sediment contamination, and develop appropriate remedial alternatives for the identified contaminants. The advancement of the field program has being performed in stages based on preliminary results. The groundwater investigation includes the installation, testing and sampling of multiple monitoring wells, soil/bedrock borings, and geophysical testing on and surrounding the Site.

Community engagement activities will play an integral role during the RI/FS process. EPA will communicate openly and effectively with community members on a regular basis to ensure their health and safety, address their issues and concerns, and provide ample opportunities for public participation.

The Superfund program endorses the core values for public participation developed by the International Association for Public Participation. These core values form the foundation of EPA's interactions with communities, and are stated as follows:

- People should have a say in decisions about actions that affect their lives.
- Public participation includes the promise that the public's contribution will influence the decision.
- The public participation process communicates the interests and meets the needs of all participants.
- The public participation process seeks out and facilitates the involvement of those who are potentially affected.
- The public participation process involves citizens in defining how they participate.
- The public participation process communicates to participants how their input was or was not used.
- The public participation process provides participants with the information they need to participate in a meaningful way.

This CEP has been prepared as part of EPA's efforts to develop and implement a community engagement program that meets the information needs of the affected community. This document is based primarily upon interviews conducted by EPA with affected residents, local government and health officials, and other interested parties in Cidra, Puerto Rico. Other sources for this CEP include Site documents and other background materials contained in files maintained by EPA.

The CEP is organized into the following sections:

1.0 Overview of the Community Engagement Plan

2.0 Capsule Site Description

3.0 Community Background

4.0 Highlights of the Community Engagement Plan

5.0 Community Engagement Activities and Timing

Appendices:

A. List of Contacts and Interested Parties

B. Locations for Information Repository, Administrative Record File, and Public Meetings

C. Glossary

The EPA Region II, Caribbean Environmental Protection Division, San Juan, Puerto Rico has the lead responsibility for overseeing the RI/FS for the Site. The EPA Communications Division will oversee all community involvement activities at the Site.

1.2 Objectives of the Community Engagement Program

Preparation of a Community Engagement Plan is required under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA). The federal program within EPA developed enforce these laws is known as Superfund.

On January 21, 1991, EPA issued a new directive through the Office of Solid Waste and Emergency Response (OSWER) which, among other things, emphasizes the objective that EPA should make every effort to fully incorporate the public's concern into site decision making.

Based upon this OSWER directive, EPA has established the following general community involvement objectives:

- Keep the public well informed of ongoing and planned activities.
- Encourage and enable the public to get involved.
- Listen carefully to what the public is saying.
- Identify and deal responsibly with public concerns.
- Change planned actions where public comments or concerns have merit.
- Explain to citizens how EPA considered their comments, what EPA plans to do, and why EPA reached its decision.

Superfund's Community Engagement Program provides the mechanism through which EPA and a community can work collaboratively on a good solution to the hazardous waste problem confronting the community.

EPA conducts community involvement activities to ensure that the local public has input regarding decisions about cleanup actions at hazardous waste sites and is well informed about the progress of those actions.

1.3 Superfund Community Engagement Requirements

EPA policy requires that a community engagement effort accompanies any Superfund remedial (cleanup) investigation and response. The following paragraphs describe the minimum community engagement requirements that EPA must conduct at a Superfund site from the period beginning prior to the RI through the remedial design. These minimal requirements are set forth in the 1990 National Oil and Hazardous Substances Pollution Contingency Plan (NCP), in SARA, and in EPA policy documents. EPA may also undertake discretionary community engagement activities based upon the community's concerns and information needs.

Prior to Remedial Investigation:

Community Interviews - EPA must conduct interviews with local officials, public interest groups, and community members to solicit their concerns and information needs and to learn how and when people would like to be involved in the Superfund process.

Community Engagement Plan (CEP) - Before beginning field work for the RI, EPA develops and approves a CEP based on community interviews and other relevant information. The CEP specifies the community involvement activities that EPA expects to undertake during the remedial response.

Information Repository - EPA must establish at least one information repository at or near the location of the Site. Each information repository should contain a copy of items developed, received, published, or made available to the public, including information that describes the Technical Assistance Grant application process. EPA must make these items available for public inspection and copying, and must inform interested citizens of the establishment of the information repository.

Technical Assistance Grant (TAG) Notification - EPA must inform the public of the availability of the TAG and must include material that describes the TAG application process in the information repository. The TAG

program provides funds for qualified citizens' groups to hire independent technical advisors to help them understand and comment on technical decisions relating to Superfund cleanup actions.

Upon Commencement of Remedial Investigation:

Administrative Record - EPA must establish an administrative record for the selection of a response action at or near the Site, and make the administrative record available for public inspection. The administrative record must include documents EPA used or potentially relied on when selecting a response action. EPA must publish a notice of availability of the administrative record in a major local newspaper of general circulation.

Upon Completion of the Feasibility Study and Proposed Plan:

RI/FS and Proposed Plan Notification and Analysis - EPA must publish a public notice of the availability of the RI/FS and proposed plan in a major local newspaper of general circulation, including a brief analysis of the proposed plan. The public notice must identify EPA's preferred remedy, the other alternatives analyzed, the location where the public can review and copy the administrative record, and the name of an agency contact. The notice also must announce a comment period.

EPA must solicit public comment on all alternatives, not just the preferred alternative, and the information that supports the alternatives. The proposed plan should clearly state that it is not the sole document on which the public should rely for information on the alternatives, referring the reader to the RI/FS Report in the administrative record and information repository.

Public Comment Period on RI/FS and Proposed Plan - EPA must provide at least 30 calendar days for the submission of written and oral comments on the proposed plan and supporting information located in the information repository, including the RI/FS. This comment period will be extended by a minimum of 30 additional days upon timely request.

Public Meeting and Transcript - EPA must provide an opportunity for a public meeting regarding the Proposed Plan and supporting information to be held at or near the Site during the comment period. EPA must have a court reporter prepare a meeting transcript that is made available to the public and included as part of the administrative record. EPA should place the transcript in the information repository.

Notice and Comment Period for Settlement Agreements - EPA must publish a notice of a proposed settlement in the *Federal Register* at least 30 days before the agreement becomes final. This notice must state the name of the facility and the parties to the proposed agreement. Those persons who are not parties to the agreement must be provided an opportunity to file written comments for a period of 30 days.

Pre-Record of Decision (ROD) Significant Changes:

Responsiveness Summary - EPA must prepare a responsiveness summary that responds to significant comments, criticisms, and new data submitted on the proposed plan and RI/FS during the public comment period. The responsiveness summary becomes part of the ROD.

Discussion of Significant Changes - EPA must include in the ROD a discussion of significant changes and the reasons for such changes, if new information is made available that significantly changes the basic features of the remedy and EPA determines that the changes could be reasonably anticipated by the public.

Revised Proposed Plan and Public Comment - Upon EPA's determination that such changes could not have been reasonably anticipated by the public, EPA must issue a revised proposed plan that includes a discussion of the significant changes and the reasons for such changes. EPA must seek additional public comment on the revised proposed plan.

After the ROD is Signed:

ROD Availability and Notification - EPA must make the ROD available for public inspection and copying at or near the Site prior to the start of any remedial action. Also, EPA must publish a notice of the ROD's availability in a major local newspaper of general circulation. The notice must state the basis and purpose of the selected action.

Review and Revision of the CEP - Prior to remedial design, EPA must review the CEP, and, if necessary, revise it during the remedial design and construction phase to account for the needs and concerns of the community that are not already provided for in the current CEP. EPA staff may conduct community interviews or other activities to identify these concerns.

Post-ROD Significant Changes:

When the remedial or enforcement action, or the settlement or consent decree, differs significantly from the remedy selected in the ROD with respect to scope, performance, or cost:

Notice and Availability of Explanation of Significant Differences - EPA must publish a notice that briefly summarizes the explanation of significant differences and the reasons for such differences in a major local newspaper. EPA must also make the explanation of significant differences and supporting information available to the public in the administrative record and information repository.

When the remedial or enforcement action, or the settlement or consent decree, fundamentally alters the basic features of the selected remedy with respect to scope:

Notice of Availability/Brief Description of Proposed ROD Amendment - EPA must propose an amendment to the ROD and issue a notice of the proposed amendment in a major local newspaper of general circulation.

Public Comment Period, Public Meeting, Meeting Transcript, and Responsiveness Summary - EPA must follow the same procedures for notice and comment as those required for completion of the FS and proposed plan.

Notice and Availability of Amended ROD - EPA must publish a notice of availability of the amended ROD in a major local newspaper and make the amended ROD and supporting information available for public inspection and copying in the administrative record and information repository prior to commencement of the remedial action affected by the amendment.

Remedial Design:

Fact Sheet and Public Briefing - Upon completion of the final engineering design, EPA must issue a fact sheet and provide a public briefing, as appropriate, prior to beginning remedial action.

Source: *EPA Superfund Community Involvement Handbook.* Prepared by the U.S. EPA, Office of Emergency and Remedial Response, Washington, DC. EPA 540-K-01-003. April 2002.

Section 2
Capsule Site Description

The following subsections provide a description and history of the Site, and are based upon the *RI/FS Work Plan,* December 29, 2006. This document and other Superfund-related information are available for public review at the information repository located at the *Alcaldia de Cidra* (City Hall).

2.1 Site Location and Description

The Site is located just south of Cidra's downtown and west of the northern end of State Road 171. It consists of a groundwater plume with no identified source(s) of contamination. The plume covers approximately 6 acres (EPA 2003a). Refer to Figure 1-1.

The aquifer of concern is in the Pre-Robles volcanic rock that underlies the area. Existing well logs and the recent EPA subsurface investigations indicate that 9 to 120 feet of clay or silty clay and 10 to 30 feet of decomposed rock overlie the bedrock throughout the municipality of Cidra. Based on the existing well logs, water-bearing zones in the bedrock range from 40 to 360 feet below the ground surface (bgs) in a confined aquifer. The groundwater flow direction has not been determined and is expected to be complex due to the site's location between the Rio de la Plata and Rio de Bayamon drainages and the presence of Cidra Lake. The closed and active wells are finished in the bedrock aquifer at total depths ranging from 110 to 705 feet bgs, with surface casing lengths ranging from 8 to 224 feet (EPA 2003b).

Conservative estimates of the populations served when the wells were closed include 113 people for Cidra 3; 117 people for Cidra 4; 207 people for Cidra 6; and 0 people for Cidra 8. In total, there are 15 active drinking water wells located within 4 miles of the site, serving a total population of 8,838 people (Weston, 2003). There are 6,940 people who live within 2 miles of the site.

The topography and surface water drainage of the site is to the south/southwest toward Rio Arroyata, a tributary of Rio de la Plata. Limited surface water runoff from the most northern portion of the Cidra commercial area may flow northeast to the Lago de Cidra watershed.

An intake located about 2.2 miles downstream of the possible groundwater discharge points in Lago de Cidra serves approximately 30,148 people (ATSDR, 2005). The surface water withdrawal is also used for watering commercial livestock. The lake is a popular fishing destination. Wetlands are not mapped in central Puerto Rico where Cidra is located; however, habitats for endangered and threatened species are documented along the surface water pathway and within a 4-mile radius of the site. There is a residential population of approximately 52,770 persons within 4 miles of the Cidra site.

2.2 Site History

The Site consists of a groundwater plume with two identified potential source(s) of contamination. To protect public health, PRDOH ordered the following four public supply wells in Cidra to be closed due to contamination by PCE:

- Cidra Well 4 (Calle Padilla Final) in March 1996
- Cidra Well 8 (Frente Cemeterio) in October 1996
- Cidra Well 3 (Planta Alcantarillado) in February 1999
- Cidra Well 6 (Calle Baldorioty) in August 2000

Other chlorinated VOCs, including 1,1-DCE and TCE, were also detected in the wells before they were closed.

In June 2002, EPA Region 2 SAT collected groundwater samples from the closed municipal supply wells and 20 other active and inactive wells in Cidra. The sample locations are shown in Figure 1-2. PCE was detected in the closed wells at concentrations ranging from 0.64 to 12 micrograms per liter (µg/L), and was also detected in two industrial/potable supply wells and three industrial wells. Related chlorinated solvents, including 1,1-DCE, 1,1-dichloroethane (1,1-DCA), cis-1,2-dichloroethylene (cis-1,2-DCE), carbon tetrachloride, and TCE, were also detected in groundwater samples. Maximum Contaminant Levels (MCLs) for PCE (5 µg/L) and 1,1-DCE (7 µg/L) were exceeded; however, the exceedances did not occur in active drinking water wells. Other VOCs were also detected, in most cases at estimated concentrations below the sample quantitation limits (SQL).

The groundwater samples were also analyzed for semi-volatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), and inorganic parameters. There were no detections of SVOCs, pesticides, or PCBs above SQLs. Inorganic parameters were not detected above MCLs in the groundwater samples, except thallium, which was reported at estimated concentrations above the MCL (2 µg/L) in three samples. Thallium is not known to be associated with the Cidra groundwater plume.

In January and February 2003, Region 2 SAT investigated 12 industrial sites in the Cidra area as potential sources of contamination for the groundwater plume. As a result of this effort, five sites remained as possible sources: International Dry Cleaners, Zenith Laboratories Caribe, Inc. (IVAX), Ramallo/Cidra Convention Center, Caribbean Manufacturing Co. and CCL Label de Puerto Rico.

The field-screening results indicated concentrations of PCE, TCE, and trans-1,2-DCE ranging from approximately 7 to 255 parts micrograms per kilogram (µg/kg) in soils collected from International Dry Cleaners site. Other detections of less than 3 µg/kg included vinyl chloride in a sample from the CCL Label site. Another sample collected from the Tech Group Puerto Rico site also had concentrations of less than 3 µg/kg of 1,1,2,2-tetrachloroethane (1,1,2,2-TCA). The field-screening data indicated the presence of other VOCs in soil samples from some sites, mostly at concentrations below 1 µg/kg.

The CLP analytical results confirm that PCE and related substances were present in soil at the International Dry Cleaners site. PCE at 11,000µg/kg, TCE at 2,800 µg/kg, and cis-1,2-DCE at 5,100 µg/kg were detected in the 4-foot sample. The same compounds were detected 7-foot sample at lower concentrations, while only cis-1,2-DCE at 6,700 µg/kg was detected in the 2-foot sample. The levels of PCE, TCE, and cis-1,2-DCE exceed EPA's generic migration-to-groundwater Soil Screening Levels (SSL). The only other significant concentrations were 1,1-DCE above the generic SSL in a soil sample from the IVAX site, and an estimated concentration for 2-butanone in a sample from the Caribbean Manufacturing Co. site.

Region 2 SAT collected two sediment samples from drainage channels at Cidra Industrial Park. Site-related VOCs were not detected in the drainage channel samples. Region 2 SAT also collected surface water and sediment samples from five locations in Cidra Lake (Lago de Cidra) to evaluate the interconnection between the lake and the groundwater plume. Field-screening and CLP analytical results indicated that there were no site-related

VOCs detected in the lake surface water and sediment samples. The Site was proposed for the National Priorities List (NPL) on March 8, 2004 and listed on July 22, 2004.

CDM Smith, on behalf of EPA mobilized to the Site and performed Stage 1 field activities from July 2007 through January 2009. The primary objectives for the Stage I field investigations were to collect initial information on the following: potential source(s) of groundwater contamination; geology and lithology of the bedrock aquifer, groundwater flow direction, and contaminant distribution in the bedrock aquifer. Major field activities included a source area investigation, drilling and rock coring, borehole geophysics, packer sampling and testing, multiport monitoring well installation and sampling, and groundwater elevation measurements.

Results showed that PCE (a common dry cleaning chemical) and its reductive dechlorination daughter products, TCE and cis-1,2-DCE, were detected in nearly all wells investigated. The highest levels of PCE were detected in the deepest zones of MPW-5 multiport monitoring well and Cidra #8 public supply well. Figure 1-2 shows the locations of all sampled wells. Results from this investigation suggested that there were three potential source areas that may be contributing to the contamination in the Cidra supply wells: International Dry Cleaner, CCL Label, and Ramallo/Cidra Convention Center. Chlorinated VOCs detected in groundwater samples were identified in soil samples at these facilities. Maximum concentrations detected in samples collected at the International Dry Cleaner for PCE (270,000 µg/kg) and TCE (39,000 µg/kg) far exceeded the soil screening criteria. Figure 1-3 shows soil sampling locations. Samples collected at CCL Label resulted with VOCs detections but with the exception of one sample collected near the groundwater table and having PCE (110 µg/kg), none exceeded the soil screening criteria. Soil samples collected at the Ramallo/Cidra Convention Center had PCE exceedances of up to 3,800 µg/kg (CDM Smith 2009).

From April through July 2010, CDM Smith performed Stage 2 field activities on behalf of EPA. The primary objectives for the Stage 2 field investigations were to identify potential source(s) and characterize the nature and extent of groundwater contamination. Stage 2 included the following major field activities: source area soil investigation, monitoring well installation, synoptic water level measurement and groundwater sampling. The groundwater sampling performed during this stage provided additional information regarding the nature of the Cidra groundwater plume. Three site-related VOCs (PCE, TCE and cis-1,2-DCE), were detected in nearly all sampled wells. The highest levels of PCE (1,700 µg/L), TCE (31 µg/L) and 1,1-DCE (31 µg/L) were detected at a groundwater well located at the Ramallo/Cidra Convention Center. Site-related VOCs, specifically PCE, were identified in soils at levels up to 3,300,00 µg/kg at Ramallo/Cidra Convention Center and up to 1,700,000 µg/kg at International Dry Cleaner. Based on this data, and on the fact that these properties are located up gradient of the documented contamination plume, the Ramallo/Cidra Convention Center and the International Dry Cleaner have been identified as potential sources of local groundwater contamination (CDM Smith 2011).

The primary objectives for the Stage 2a field investigation were to delineate groundwater contamination downgradient of identified sources, and to determine if contaminated groundwater has migrated to surface water bodies. The program included additional well installation and sampling, synoptic water level measurements, surface water and sediment sampling, and a groundwater to surface water interaction evaluation. Groundwater sampling results indicated that the highest level of site related VOCs in groundwater occur in saprolite wells located on and downgradient of Ramallo/Cidra Convention Center. The highest results were found in SMW-10, located at Ramallo/Cidra Convention Center, as follows: PCE at 1,700 µg/L, TCE at 31 µg/L, and 1,1-DCE at 31 µg /L. Low levels of PCE were also detected in surface water from Rio Arroyata.

Section 3
Community Background

The following three subsections provide a general profile of the Site community, a history of community engagement at the Site, and key community concerns as expressed in interviews conducted on October 6th and December 8th 2011.

3.1 Community Profile

The Municipality of Cidra is located on the central eastern portion of Puerto Rico. Cidra is bordered on the north by the Municipalities of Comerio and Aguas Buenas, on the east by Caguas, on the west by Aibonito and Barranquitas, and on the south by Cayey. Cidra covers an area of approximately 36 square miles, which include urban and rural zones that in turn have fourteen wards: Arenas, Bayamón, Beatriz, Ceiba, Certenejas, Cidra Pueblo, Honduras, Monte Llano, Rabanal, Rincón, Rio Abajo, Salto, Sud, and Toíta.

Cidra has three major rivers: Río Bayamón, Río de la Plata and Río Arroyata (a tributary of Río de la Plata). The dam of Rio Bayamón near Cidra creates the Cidra's lake. The Cidra lake damsite was constructed in 1946 by Puerto Rico Aqueduct and Sewer Authority (PRASA) as a public water supply source to serve the municipalities of Guaynabo, Aguas Buenas, Cidra and Comerio, among others. This reservoir has a drainage area equal to 8.6 square miles (13.8 square kilometers).

Cidra was first separated from Cayey and founded as a town in 1809. In 1902, after 93 years as a municipality, Cidra returned to be a ward of Cayey. Then in 1905, Cidra was officially founded as a municipality. Though no official records exist, it is believed that Mrs. Viviana Vazquez donated the lands for the establishment of the town.

Cidra contains the largest population of the Paloma Sabanera (*Patagioenas inornata*), an endangered native dove that in 1930 was mistakenly considered extinct. The town celebrates a yearly festival to raise awareness towards the preservation of this species.

The Frog's Rock, Hamaca's Bridge, Iberia Theater, Perico's Waterfall, Treasure Island Hotel and Nuestra Señora del Carmen Parish are various landmarks that indicate the historical, architectural and possibly archeological evolution of the area.

The public educational system is composed of 16 schools from elementary to high school programs. Cidra also has a secondary school running a bilingual program.

According to 2010 census figures, Cidra's population is near 43,480. The median household income is $13,980. Its economy includes manufacturing, government employment, construction, goods and services.

3.2 Chronology of Community Engagement

The Site has not been a focus of the community up to this point. The Agency for Toxic Substances and Disease Registry (ATSDR) Public Health Assessment did not identify community concerns about suspected exposures and health effects among members of the Cidra community.

A timeline of community engagement activities conducted to date is presented below.

- On December 2007, a public availability session was conducted as part of the initiation of the RI/FS activities for the Site. EPA representatives were present to answer questions from community members related to Site activities.
- Beginning on August, 2007, a document repository was opened at Cidra's old city hall to make Site documents available to the public.
- On December, 2007, press realeases were issued to the local newspaper.
- In October and December 2011, interviews were conducted with Site stakeholders to better assess their level of knowledge and concern about the Site, as well as to determine how to best meet their information needs.

The results of the interviews were used to complete the remainder of the CEP.

3.3 Key Community Issues and Concerns

EPA's involvement in the process, as well as that of the Puerto Rico Environmental Quality Board (PREQB), ATSDR, and PRDOH, has given community members various opportunities to raise their concerns and get answers from these agencies. EPA conducted personal interviews with a number of residents in the Site vicinity, including community leaders and a representative of the municipality of Cidra, on October 6, 2011 and December 8, 2011. The interviews were conducted at the home or work place of the interviewee.

The list of interviewees was chosen based on input from the CDM Smith, EPA and CEC. Attempts were made to include a comprehensive profile of community interests. The interviews were advertised by phone and personal communications. A total of 18 people were interviewed. This included one representative of local government, twelve representatives of the general community and five community leaders. As EPA's contractor at the site, CDM Smith coordinated and accompanied EPA to the interviews.

The following questions were asked of the interviewees:

1) Are you aware that the Cidra Public Supply have had chemical contamination above Federal Maximum Contaminant Levels and were therefore closed?
2) Are you aware of the environmental studies that have been conducted at the Cidra Groundwater Contamination Site leading up to the current Remedial Investigation?
3) Do you have any questions or concerns about the environmental studies or work being conducted at the Cidra Groundwater Contamination Site?
4) What are your main concerns about the Site?
5) Did you know that the Cidra Groundwater Contamination Site is a Superfund Site? If yes, do you have any questions or concerns about what it means to be a Superfund site?

6) Have you received any information from EPA about the Site? If yes, what did you receive?

7) What information would you like to receive in the future?

8) Have you attended any public meetings concerning the Site? If so, was the meeting you attended helpful? Would you attend future meetings?

9) If you attended a past meeting(s), was it held in a convenient location? If not, where would be a good place for future meetings?

10) How could EPA best notify you of future meetings?

11) Would you go to the Mayor's office, library or similar place to read information about the Site? What place would be most convenient for you?

12) What information do you think is important for EPA to understand about this community to effectively inform citizens about the Site?

Interviewees were also given the opportunity during the interviews to discuss whatever issues concerned them. Each interview lasted from 15 to 30 minutes. EPA answered questions regarding the purpose of its Community Engagement Program. During the interview process, the types of information that community members want to receive and how EPA can best provide the desired information was determined. This information was used to design this CEP.

The community's key issues and concerns regarding the site are organized into two categories:

- Suggestions for effective communication
- Effects on public health and welfare

Suggestions for Effective Communication

Though EPA had provided information at the public availability session and has information available at the city hall, 50 percent of interviewees had no knowledge of the investigation. Most community members have limited knowledge of the Superfund program. Few residents knew that PRASA public supply wells had chemical contamination and had to be closed. In general, interviewed local officials and community leaders believe that the community needs more information regarding the environmental investigation in progress.

There is a general belief that the ongoing investigation is related to known sanitary sewer overflows (SSOs) into the storm water system. Some interviewed community members living nearby had been affected by untreated sewage back-up into streets and homes, causing property damage and threatening public health. Some of the interviewees are aware that SSOs can eventually contaminate water resources, affecting water quality. EPA acknowledged the concerns of the affected community members but also explained to the interviewees that the contaminants detected on the wells have no relation to the SOSs.

Fifty percent of all interviewees shared a desire to be kept informed of site investigations, results, and possible remedial actions that may affect them. They would like to receive a fact sheet with information on how site contaminants relate to health problems. Also, some participants in the community interviews inquired about potential sources of contamination.

Recommended methods of communication include press releases, public notices, and informational meetings. According to 80 percent of the interviewees, the door-to-door distribution of fact sheets would be the most

efficient method to announce public meetings. Alternatively, they recommended the use of loudspeakers and sign postings. Residents thought that all communication should address their concerns in a non-technical approach and be presented in Spanish. Residents thought that EPA should hold a public meeting to inform the community of on site-related matters.

The community showed trust in EPA, though the interviewees were not sure how the results of the investigation would be communicated to them.

Effects on Public Health and Welfare

Although no concerns were raised during the comment period prior to the publication of the 2005 final ATSDR report, interviewed community members in general showed concern about health effects of long-term exposure to groundwater contaminants. Some mostly had concern on children's health.

A local official had concerns on the possibility that illegal water wells used for agriculture may be impacted by the known groundwater contamination. This agricultural expert provided by the University of Puerto Rico Agricultural Extension Services believes that nearby farmers should be notified of the health effects caused by possible transmission of contaminants on their produce.

Section 4
Highlights of the Community Engagement Plan

The CEP at the Site is designed to provide the local community with various opportunities to learn about and participate in the cleanup process. It focuses on ensuring two-way communication between EPA and interested parties, being responsive to their information needs, and keeping them informed of technical progress at the Site.

Based upon the information collected during the community interviews, EPA will incorporate the following approaches into its ongoing community engagement effort at the Site:

- **Educate the affected community about the Superfund process and how they can participate in the long-term remedial response program.** EPA will prepare and distribute information to the affected communities on the Superfund process. This material will stress EPA's role and responsibilities in implementing the Site cleanup, particularly the RI/FS phase. EPA will also focus on community outreach to ensure that the community is aware of the many opportunities for public involvement. EPA will attempt to match each situation with an appropriate communication technique.

- **Distribute information to the public on relevant issues of concern**. EPA has identified a number of issues and concerns which are important to community members, as detailed in the preceding section. EPA will release timely and accurate information on these topics to local government and health officials, the media, and community leaders for public distribution. EPA will share the complete results of ongoing investigations, and communicate potential Site risks to affected residents in an open manner. These measures will ensure that all affected residents as well as the broader community are kept abreast of EPA activities.

- **Work with community leaders through established, local organizations to "spread the word."** A goal of this CEP is to encourage community participation in the long-term cleanup process. EPA will cooperate with community leaders so that requested information and opportunities for community involvement can be communicated to a large audience. Through this established network, EPA will maximize the effectiveness of its community involvement techniques and lend credibility to the cleanup process.

Section 5
Community Engagement Activities and Timing

EPA will continue to be proactive in its community engagement efforts at the Site and will initiate additional activities to keep the affected community and other interested parties well informed about Site events. These activities also promote many varied opportunities for community members to express their viewpoints and participate in the cleanup process. The community engagement techniques and their timetable are discussed in the following section.

Figure 5-1 illustrates the timing of each community engagement activity relative to the cleanup schedule for the Site.

1. Designate EPA contacts to maintain ongoing communication with the Site community.

EPA has designated Ms. Brenda Reyes, Community Engagement Coordinator (CEC), Region 2, Caribbean Environmental Protection Division (CEPD) as Site Spokesperson. Ms. Reyes will serve as a daily contact for residents during the RI/FS, answering telephone calls and responding to written inquiries about site activities. She also is responsible for implementing this CEP. She can be reached at (787) 977-5869 and via e-mail at reyes.brenda@epa.gov.

EPA has assigned Adalberto Bosque as Remedial Project Manager (RPM) for the Site. Community members may contact Mr. Bosque at (787) 977-5825 with inquiries about the RI/FS. (See Appendix A for a complete address listing for EPA contacts.)

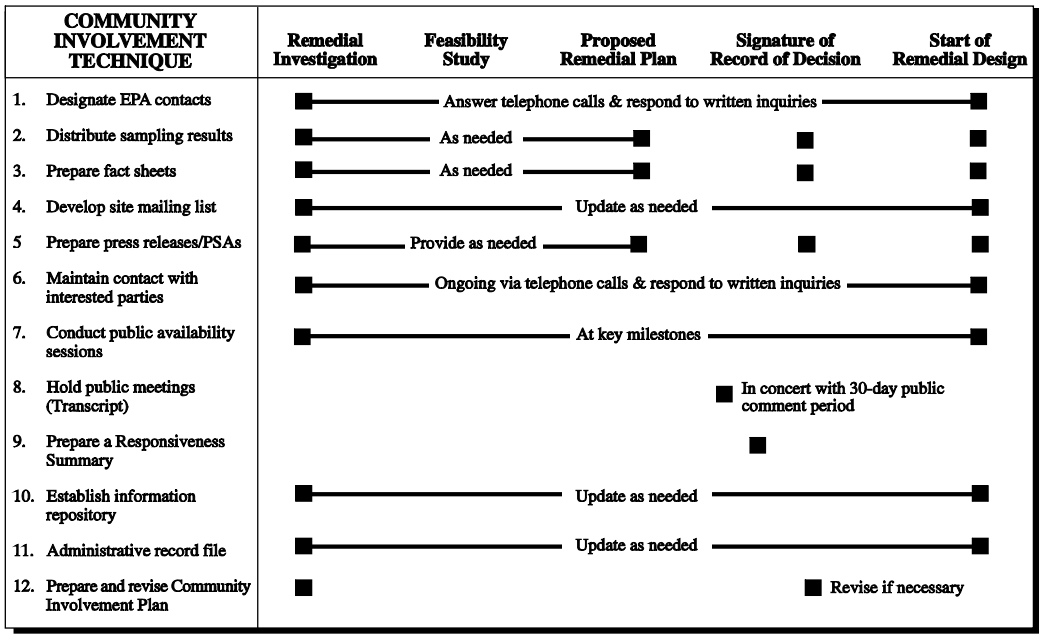
2. Distribute sampling results and technical reports to interested parties, on an as needed basis and upon special request.

Sampling results will be made available to affected property owners as well as other interested parties. EPA also will maintain a schedule of upcoming sampling activities such that affected parties are informed beforehand. Mr. Bosque will serve as the contact person for technical inquiries about sampling events and the results.

In addition, EPA plans to distribute technical reports to interested parties, such as county and local officials, to keep them apprised of current Site conditions. These reports may include work plans, health and safety documents, sampling plans, summaries of sampling results, and risk assessments. This information will also be available in the information repository at the *Antigua Casa Alcaldia in Cidra*.

3. Prepare fact sheets to educate and inform the affected community of findings, progress, and future activities at critical points in the cleanup process.

Figure 5-1
Timing of Community Engagement Activities



EPA will prepare fact sheets that address issues of concern or disseminate Site data, as appropriate. EPA will also develop fact sheets at significant intervals during the investigation and cleanup process to enhance community knowledge and participation.

All fact sheets will be written in non-technical language to promote general understanding. Fact sheets will be prepared in English and Spanish. EPA will make sure the information is consistent with other sources and is relevant to community life. Fact sheets will list the EPA Site contacts and the information repository address, where site-related documents are available for public review.

EPA will distribute the fact sheets by mail as well as at public meetings. EPA will also place a copy of each fact sheet in the information repository.

4. Update and maintain a site mailing list.

EPA will continually update the mailing list of all community members and officials who are either interested in or affected by the Site. To be added to the mailing list, contact Ms. Brenda Reyes, CIC (see Item 1).

5. Prepare press releases and Public Service Announcements (PSAs) as needed to provide timely, accurate information to the local media.

EPA will prepare statements for the press and PSAs to report Site news and to announce public meetings and other opportunities for public engagement. Press releases also will be prepared to report significant findings during the RI/FS process, when the Final RI and FS Reports are completed, and before Remedial Action starts.

EPA will distribute the press releases and PSAs to local media, such as the **La Cordillera** newspaper. EPA may also contact local television or radio stations to announce public meetings or to report Site news.

EPA will distribute press releases via the news wire service and via faxes to local press, community groups, and to state, federal and local government and elected officials, as appropriate. Addresses and telephone numbers of local officials, community organizations, and media are included in Appendix A.

6. Conduct informal meetings and maintain telephone contact with local officials and other interested parties to report progress, assess concerns, and promote an open dialogue.

EPA will hold informal meetings, as necessary, using flexible formats adapted to each situation. EPA will distribute pertinent information from site reports at this time. EPA also will maintain telephone contact, use electronic mail, and send faxes as needed to keep parties informed of Site activities and to coordinate releases of information to the public.

7. Conduct public availability sessions at the completion of the RI and as needed, thereafter.

EPA will hold public availability sessions throughout the Superfund process, when new information becomes available and at significant milestones. EPA will make every effort to involve local government and health officials in these meetings, in addition to EPA site contacts.

EPA plans to hold its next public availability session at the completion of the RI. Other sessions will be considered at the completion of the FS, at the completion of the cleanup design, before the cleanup action begins, or as needed.

8. Hold public meetings and provide a 30-day comment period to receive input from the community on major EPA decisions regarding the cleanup.

EPA will conduct public meetings as necessary at convenient locations in Cidra, such as the Antigua Casa Alcaldia in Cidra.

EPA plans to hold the first public meeting at the conclusion of the RI/FS and Baseline Risk Assessment. EPA will discuss the findings of the Final RI and FS Reports, the various cleanup alternatives, EPA's preferred cleanup/treatment alternative, as documented in the Proposed Plan, and the rationale for the choice. A question-and-answer period will follow.

During the meeting, EPA will accept oral comments on the preferred cleanup alternative. A 30-day public comment period also will be held to accept oral or written comments on the proposed plan for cleanup. The public comment period can be extended an additional 30 days, if requested by the public.

In conjunction with the comment period, EPA will publish a notice of the availability of the final RI and FS reports and the proposed plan, including a brief summary of the proposed plan, in a local newspaper of general circulation.

EPA will arrange for a court reporter to prepare a transcript of the public meeting. A copy of the transcript will be placed in the information repository.

9. Prepare a Responsiveness Summary.

EPA will prepare a responsiveness summary as part of the ROD for the Site. The ROD is a public document that explains which cleanup alternative will be used at the Site. The responsiveness summary captures public issues

and concerns raised during the 30-day public comment period on the proposed plan. It also documents EPA and state responses to these concerns.

The ROD and responsiveness summary will be available for public review in the information repository prior to the start of the cleanup action. EPA will publish a notice of the availability in a local newspaper of general circulation.

10. Establish and maintain an information repository to hold site documents for public review.

EPA has established an information repository for site documents at the Antigua Casa Alcaldia in Cidra. Documents in the information repository are available for public inspection and copying at a reasonable cost during normal library hours. (See Appendix B for more information.)

Documents resulting from past investigation and work at the Site are currently in the repository. Site files will also include fact sheets, technical summaries, site reports (including work plans and the CEP), transcripts, TAG information, and general Superfund literature. EPA will update the information repository as necessary.

11. Establish an administrative record file and publish notification.

EPA will establish an administrative record file for the Site at the Antigua Casa Alcaldia in Cidra for public review. This file contains all information used or potentially relied on by EPA to make its decision on the selection of a response action (long-term cleanup) for the Site. (See Appendix B for more information.)

EPA will publish a notice of availability of the administrative record file in a local newspaper of general circulation.

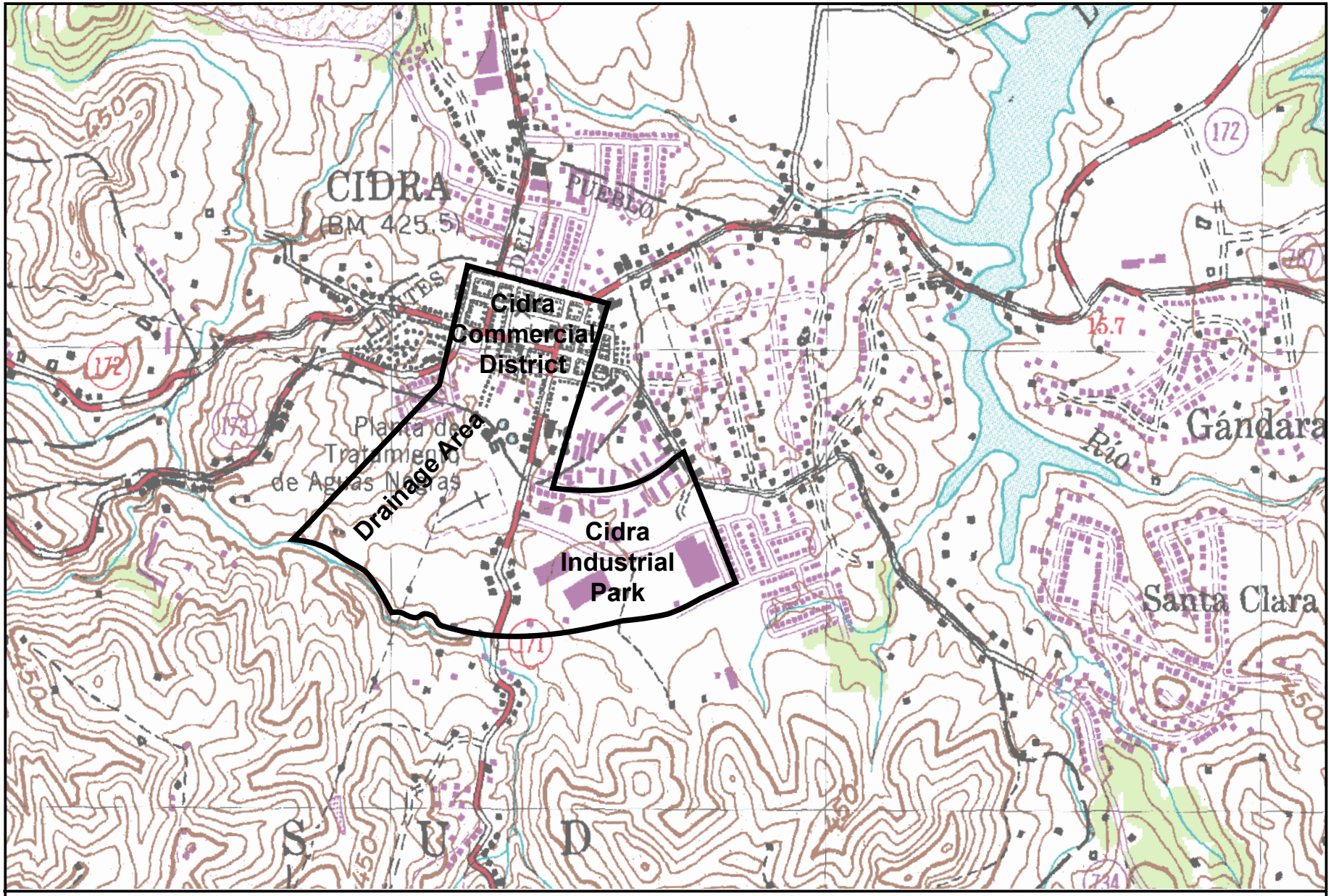
12. Prepare and Revise the CEP.

EPA prepared this CEP based on the concerns and information needs identified during community interviews held on October 6, 2011 and December 8, 2011. EPA intends to implement the techniques outlined in this CEP, as appropriate. EPA will review the CEP during the course of site activities with regard to changing community concerns and/or information needs as they become known to EPA. In particular, EPA will review the CEP after the ROD has been written prior to the start of remedial design activities and revise the document, if necessary.

The revised CEP, if needed, will assess the success of the community engagement program to date and outline community involvement activities more appropriate to the remedial design and remedial action (RD/RA) phases. EPA may conduct additional community interviews at this time. During its review, EPA will:

- Update facts and verify information in the CEP.
- Assess the community engagement program to date and indicate if the same or different approaches will be taken during the RD/RA.
- Develop a strategy to prepare the affected community for future roles during the RD/RA and operation and maintenance.

Figures



Source USGS 7.5 Minute Series Topographic Map, Comerio Quadrangle, Puerto Rico

Site Area

N

approximate scale

0 0.25 0.5 miles

Figure 1-1
Site Location Map
Community Engagement Plan
Cidra Groundwater Contamination Site
Cidra, Puerto Rico

CDM Smith

R2-0006556

Ramoncito
Don Quijote
Coffee Shop
International Dry Cleaner
CIDRA-06
MPW-2
SMW-2
CIDRA-04
MPW-3
CIDRA-03
MPW-4
ESSO
SMW-12
SMW-11A
SMW-11
Ramallo/Cidra
Convention Center
CCL Label
SMW-9
MPW-5
CIDRA-08
SMW-10
SMW-5
ENCO
SMW-1
MPW-1
Shellfoam
DJ Manufacturing
MPW-6 (Original Multiport Well Abandoned/
New well screened from 210-230 ft bgs)
Pepsi
IVAX

Legend

- Saprolite Monitoring Wells
- Multiport Wells
- Public Supply Wells
- Property Boundary

N

0 150 300 600 Feet

Figure 1-2
Source Area Groundwater Well Locations
Cidra Groundwater Contamination Site
Cidra, Puerto Rico

CDM Smith

R2-0006557

Ramoncito
Don Quijote
Coffee Shop
International Dry Cleaner
ESSO
CCL Label
Ramallo/Cidra
Convention Center
ENCO
Shellfoam
DJ Manufacturing
IVAX
(Former Zenith Laboratories Caribe Inc.)
Pepsi
RCTSB-01
RCTSB-02
DQSB-01
DQSB-02
DQSB-03
Don Quijote
CSSB-02
CSSB-01
ESSB-08
ESSB-06
ESSB-07
ESSB-05
ESSB-01
ESSB-04
ESSB-02
ESSB-03
ESSB-15
ESSB-16
ESSB-10
ESSB-09
ESSB-11
ESSB-14
ESSB-13
ESSB-12
CCSB-07
CCSB-06
CCSB-05
CCSB-08
CCSB-04
CCSB-14
CCSB-03
CCSB-09
CCSB-10
CCSB-15
CCSB-16
CCSB-12
CCSB-11
CCSB-01
CCSB-17
CCSB-13
CCSB-02
CCSB-18
IDCSB-09
IDCSB-07
IDCSB-01
IDCSB-08
IDCSB-05
IDCSB-06
IDCSB-04
IDCSB-12
IDCSB-13
IDCSB-14
IDCSB-03
IDCSB-10
IDCSB-11
RMSB-04
RMSB-03
RMSB-17
RMSB-14
RMSB-16
RMSB-05
RMSB-10
RMSB-19
RMSB-02
RMSB-20
RMSB-15
RMSB-22
RMSB-11
RMSB-12
RMSB-13
RMSB-23
RMSB-06
RMSB-01
RMSB-18
RMSB-08
RMSB-09
RMSB-07
RMSB-21
ENSB-04
ENSB-05
ENSB-07
ENSB-03
ENSB-06
ENSB-01
ENSB-02
SHSB-02
SHSB-03
SHSB-01
SHSB-04
SHSB-10
SHSB-05
DJSB-04
DJSB-03
SHSB-06
SHSB-09
SHSB-07
SHSB-08
DJSB-02
DJSB-05
DJSB-01
IVAX Well (Abandoned)
IVSB-04
IVSB-01
IVSB-02
IVSB-03
PESB-05
IVSB-05
PESB-04
PESB-03
PESB-06
IVSB-06
PESB-02
PESB-07
PESB-01
IVSB-07
PESB-08
PESB-09
PESB-10
IVSB-10
IVSB-08
IVSB-09

Legend

- Soil Boring
- Property Boundary

N

Scale

0 150 300 600 Feet

Figure 1-3
Source Area Soil Boring Locations
Cidra Groundwater Contamination Site
Cidra, Puerto Rico

CDM Smith

R2-0006558

APPENDIX A
LOCATIONS FOR INFORMATION REPOSITORY, ADMINISTRATIVE RECORD FILE, AND PUBLIC MEETINGS/HEARINGS

CDM Smith

APPENDIX A
LOCATIONS FOR INFORMATION REPOSITORY, ADMINISTRATIVE RECORD FILE, AND PUBLIC MEETINGS/HEARINGS

Information Repositories:

Municipio de Cidra — (787) 434-1400 EXT. 2715
Nueva Casa Alcaldía
Centro Gubernamental
Barceló Street #47
Cidra, PR 00739

Contact Name: Maribel Planes
Hours: Monday - Friday 8:00AM - 4:30PM

Administrative Record File:

Municipio de Cidra — (787) 434-1400 EXT. 2715
Nueva Casa Alcaldía
Centro Gubernamental, Barceló Street #47
Cidra, PR 00739

Contact Name: Maribel Planes
Hours: Monday - Friday 8:00AM - 4:30PM

U.S. Environmental Protection Agency
Caribbean Environmental Protection Division — (787) 977-5865
Edificio Europa, Suite 417
1492 Ponce De Leon Avenue
San Juan, Puerto Rico 00907

Contacts: Adalberto Bosque, RPM — (787) 977-5825
Brenda Reyes, CIC — (787) 977-5869
Hours: Monday - Friday 9:00AM - 4:30PM

EPA- Superfund Records Center
290 Broadway, 18th Floor
New York, New York 1007-1866
Hours: Mon - Friday 9:00AM - 4:30PM

Public Meetings/Hearings:

Municipio de Cidra — (787) 434-1500 EXT. 2751
Antigua Casa Alcaldia
Luis Muñoz Barrio #33 Street
Cidra, PR 00739

Contact: George Pereira

APPENDIX B
LIST OF CONTACTS AND INTERESTED PARTIES

APPENDIX B
LIST OF CONTACTS AND INTERESTED PARTIES

I. Federal Elected Official

Hon. Pedro Pierluisi (202) 225-2615
United States Representative
P.O. Box 4751
San Juan, Puerto Rico 00902-4751
1213 Longworth HOB
Washington, D.C. 20515

II. Puerto Rico Elected Officials

Hon. Luis Fortuño (787) 721-7000
Governor of Puerto Rico
La Fortaleza
P.O. Box 9020082
San Juan, Puerto Rico 00902-0082

Senator:
Hon. Carlos J. Torres (787) 724-2030 ext. 1648
Senado-EL Capitolio
P.O. Box 9023431
San Juan, PR. 00902-3431
Cjtorres@senadopr.us

Representative:
Hon. Pedro Cintron (787) 725-5115
El Capitolio – 1er Piso (787) 725-0630 FAX
PO Box 9022228
San Juan, PR 00902-2228

III. Local Elected Officials

A. Cidra Municipal Government

Mayor of Toa Baja: (787) 434-1400 ext. 2500
Hon. Ángel Malavé Zayas (787) 434-1429 FAX
Vice Mayor of Toa Baja: (787) 434-1400 ext. 2500
Hon. Maria Laguna Oneill (787) 434-1429 FAX

Municipal Assembly Members: (787) 434-1400 ext. 2601

Hon. Daniel Jimenez Rivera
President
Hon. Barbara Pérez Delgado
Vice President

Hon. Carlos Malavé Zayas
Hon. Marcos A Robert Rivera
Hon. Monica Rivera Melendez
Hon. Luis S. del Valle Colón
Hon. Anibal Vazquez Carrión
Hon. Victor Otero Vicente
Hon. William Burgos Cruz
Hon. Carlos Espada Miranda
Hon. Rafael Ramos Nuñez
Hon. Laura Torres Ramos
Hon. Feliz Melendez Luna
Hon. Juan Rolón Ortiz
Hon. Roberto Colón Sánchez
Hon. Javier Rodríguez Coto
Mrs. Doris Rivera González, Secretary

Legal Counsel:
Lic. Pedro Cruz Sanchez (787) 263-7969
PO Box 372290
Cayey, PR 00737-2290

IV. Agency Representatives

U.S. Environmental Protection Agency

Carl Soderberg, Director (787) 977-5814
Caribbean Environmental Protection Division
U.S. Environmental Protection Agency
Edificio Europa, Suite 417
1492 Ponce De Leon Avenue
San Juan, Puerto Rico 00907-4127

Jose Font, Deputy Director (787) 977-5815
Caribbean Environmental Protection Division
U.S. Environmental Protection Agency
Edificio Europa, Suite 417
1492 Ponce De Leon Avenue
San Juan, Puerto Rico 00907

Adalberto Bosque, Remedial Project Manager (787) 977-5825
Caribbean Environmental Protection Division
U.S. Environmental Protection Agency
Edificio Europa, Suite 417
1492 Ponce De Leon Avenue
San Juan, Puerto Rico 00907

Brenda Reyes, Community Involvement Coordinator (787) 977-5869
Caribbean Environmental Protection Division
U.S. Environmental Protection Agency
Edificio Europa, Suite 417
1492 Ponce De Leon Avenue
San Juan, Puerto Rico 00907

Puerto Rico Department of Health

Dr.Lorenzo Gonzalez Feliciano, Secretary (787) 765-2929
for Environmental Health
Puerto Rico Department of Health
P.O. Box 70184
San Juan, Puerto Rico 00936-8184

Ivonne Vila, Assistant Secretary (787) 765-2929
for Environmental Health (787) 250-6547
Puerto Rico Department of Health
P.O. Box 70184
San Juan, Puerto Rico 00936-8184

Puerto Rico Environmental Quality Board

Pascual Velazquez, Point of Contact for (787) 767-8181 ext. 3208
Cidra Groundwater Contamination Site
Puerto Rico Environmental Quality Board
P.O. Box 11488
Santurce, Puerto Rico 00910

V. Media

Newspapers

La Cordillera (Weekly) (787) 739-3094
PO Box 1834 (787) 739-1854 FAX
Cidra, PR 00739
Contact: Eliezer Maldonado

La Semana (Weekly) (787) 743-3346
Editorial Semana Inc. (787) 743-5500 FAX
P.O. Box 6537
Caguas, PR 00726
Contact: Tony Martínez, Editor

El Vocero (Daily) (787) 721-2300
206 Ponce de León Avenue
P.O. Box 9023831
San Juan, Puerto Rico 00902-3831

Contact: Gaspar Roca, Editor

El Nuevo Día (Daily) (787) 641-8000
P.O. Box 9067512 (787) 641-3144 FAX
San Juan, Puerto Rico 00906-7512
Contact: Maria Luisa Ferre, Editor

Puerto Rico Daily Sun (Daily) (787) 675-5008
P.O. Box 195604
San Juan, Puerto Rico 00919-5604
Contact: Limary Ruiz, Editor

Radio Stations

WKAQ AM/FM (787) 758-5800
P.O. Box 364668 (787) 763-1854 FAX
San Juan, Puerto Rico 00936-4668

WUNO-NOTI UNO (787) 758-1300
Carr 1 Km 14.1
Rio Piedras, Puerto Rico 00925

Television Stations

Univision Puerto Rico (787) 620-1111
P.O. Box 7888
Guaynabo, Puerto Rico 00970-7888

WAPA TV Channel 4 (787) 792-4444
Pegasus Broadcasting (800) 770-5080
Carr 19 Km 0.5
Pueblo Viejo, Puerto Rico 00986

WKAQ TV Telemundo Channel 2 (787) 758-2222
383 Ave Roosevelt, Hato Rey (787) 641-2181
San Juan, Puerto Rico 00936

WIPR TV Channel 6 (787) 766-0505
P.O. Box 1900909
San Juan, Puerto Rico 00919

APPENDIX C
GLOSSARY

APPENDIX C
GLOSSARY

Administrative Order on Consent - A legal agreement between EPA and Potentially Responsible Parties (PRPs) whereby PRPs agree to perform or pay the cost of a site cleanup. The agreement describes actions to be taken at a site and may be subject to a public comment period. Unlike a consent decree, an administrative order on consent does not have to be approved by a judge.

Administrative Record - A file that is maintained, and contains all information used or potentially relied on by the lead agency to make its decision on the selection of a response action under CERCLA. This file is to be available for public review and a copy established at or near the site, usually at one of the information repositories. A duplicate file is held in a central location, such as a Regional Office or State.

Aquifer - An underground rock formation composed of materials such as sand, soil, or gravel that can store and supply ground water to wells and springs. Most aquifers used in the United States are within a thousand feet of the earth's surface.

Cleanup - Actions taken to deal with a release or threatened release of hazardous substances that could affect public health or the environment. The term is often used broadly to describe various response actions or phases of remedial responses, such as the Remedial Investigation/Feasibility Study (RI/FS).

Comment Period - A time period for the public to review and comment on various documents and EPA actions. For example, a comment period is provided when EPA proposes to add sites to the NPL. A minimum 30-day comment period is held to allow community members to review and comment on a draft RI/FS and proposed plan; it must be extended an additional 30 days upon timely request. A comment period is required to amend the Record of Decision (ROD). Similarly, a 30-day comment period is provided when EPA proposes to delete a site from the NPL.

Community Engagement - EPA's program to inform and involve the public in the Superfund process and respond to community concerns.

Community Engagement Plan (CEP) - Formal plan for EPA community involvement activities at a Superfund site. The CEP is designed to ensure citizen opportunities for public involvement at the site, determine activities that will provide for such involvement, and allow citizens the opportunity to learn more about the site.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - A Federal law passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act. The Acts created a special tax that goes into a Trust Fund, commonly known as Superfund, to investigate and clean up abandoned or uncontrolled hazardous waste sites. Under the program, EPA can either:

- Pay for site cleanup when parties responsible for the contamination cannot be located or are unwilling or unable to perform the work, or

- Take legal action to force parties responsible for site contamination to clean up the site or pay back the Federal government for the cost of the cleanup.

Groundwater - Water found beneath the earth's surface that fills pores between materials such as sand, soil, or gravel. In aquifers, groundwater occurs in sufficient quantities that it can be used for drinking water, irrigation, and other purposes.

Hazard Ranking System (HRS) - A scoring system used to evaluate potential relative risks to public health and the environment from releases or threatened releases of hazardous substances. EPA and states use the HRS to calculate a site score (0 to 100) based on the actual or potential release of hazardous substances from a site through air, surface water, or ground water. This score is the primary factor used to decide if a hazardous waste site should be placed on the National Priorities List.

Hazardous Substance - Any material that poses a threat to public health and/or the environment. Typical hazardous substances are materials that are toxic, corrosive, ignitable, explosive, or chemically reactive.

Hydrology - The science dealing with the properties, movement, and effects of water found on the earth's surface, in the soil and rocks below, and in the atmosphere.

Information Repository - A file containing current information, technical reports, reference documents, and Technical Assistance Grant (TAG) application information on a Superfund site. The information repository is usually located in a public building that is convenient for local residents, such as a public school, city hall, or library.

Leachate - A contaminated liquid resulting when water percolates, or trickles, through waste materials and collects components of those wastes. Leaching may occur at landfills and may result in hazardous substances entering soil, surface water, or ground water.

Monitoring Wells - Special wells drilled at specific locations on or off a hazardous waste site where ground water can be sampled at selected depths and studied to determine the direction of groundwater flow and the types and amounts of contaminants present.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP) - The Federal regulation that guides the Superfund program. The NCP was revised in February, 1990.

National Priorities List (NPL) - EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial response using money from the Trust Fund. The list is based, primarily, on the score a site receives on the Hazard Ranking System. EPA is required to update the NPL at least once a year.

Potentially Responsible Party (PRP) - An individual or company (such as owners, operators, transporters, or generators of hazardous waste) potentially responsible for, or contributing to, the contamination problems at a Superfund site. Whenever possible, EPA requires PRPs, through administrative and legal actions, to clean up hazardous waste sites they have contaminated.

Preliminary Assessment - The process of collecting and reviewing available information about a known or suspected hazardous waste site or release. EPA or states use this information to determine if the site requires further study. If further study is needed, a site inspection if undertaken.

Proposed Plan - A public participation requirement of CERCLA in which EPA summarizes for the public the preferred cleanup strategy, rationale for the preference, alternatives presented in the detailed analysis of the RI/FS, and any proposed waivers to cleanup standards. The proposed plan may be prepared as a fact sheet or a separate document. In either case, it must actively solicit public review and comment on all alternatives under consideration.

Record of Decision (ROD) - A public document that explains which cleanup alternative will be used at National Priorities List sites. The record of decision is based on information and technical analysis generated during the RI/FS and consideration of public comments and community concerns.

Remedial Action (RA) - The actual construction or implementation phase that follows the remedial design of the selected cleanup alternative at a site on the National Priorities List.

Remedial Design (RD) - An engineering phase that follows the record of decision when technical drawings and specifications are developed for subsequent Remedial Action at a site on the National Priorities List.

Remedial Investigation/Feasibility Study (RI/FS) - Investigative and analytical studies usually performed at the same time in an interactive, iterative process, and together referred to as the "RI/FS." They are intended to:

- Gather the data necessary to determine the type and extent of contamination at a Superfund site
- Establish criteria for cleaning up the site
- Identify and screen cleanup alternatives for Remedial Action
- Analyze in detail the technology and costs of the alternatives.

Remedial Project Manager (RPM) - The EPA or State official responsible for overseeing remedial response activities.

Remedial Response - A long-term action that stops or substantially reduces a release or threatened release of hazardous substances that is serious but does not pose an immediate threat to public health and/or the environment.

Removal Action - An immediate action taken over the short-term to address a release or threatened release of hazardous substances.

Response Action - A CERCLA-authorized action at a Superfund site involving either a short-term Removal Action or a long-term response action that may include, but is not limited to, the following activities:

- Removing hazardous materials from a site to an EPA-approved, licensed hazardous waste facility for treatment, containment, or destruction
- Containing the waste safely on-site to eliminate further problems
- Destroying or treating the waste on-site using incineration or other technologies, and
- Identifying and removing the source of groundwater contamination and halting further movement of the contaminants.

Responsiveness Summary - A summary of oral and written public comments received by EPA during a comment period on key EPA documents, and EPA's responses to those comments. The Responsiveness Summary is a key part of the ROD, highlighting community concerns for EPA decision-makers.

Selected Cleanup Alternative - The cleanup alternative selected for a site on the National Priorities List based on technical feasibility, permanence, reliability, and cost. The selected alternative does not

require EPA to choose the least expensive alternative. It requires that if there are several cleanup alternatives available that deal effectively with the problems at a site, EPA must choose the remedy on the basis of permanence, reliability, and cost.

Site Inspection - A technical phase that follows a preliminary assessment designed to collect more extensive information on a hazardous waste site. The information is used to score the site using the Hazard Ranking System to determine whether response action is needed.

Superfund - The common name used for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); also referred to as the Trust Fund.

Superfund Amendments and Reauthorization Act (SARA) - Modifications to CERCLA enacted on October 17, 1986.

Surface Water - Bodies of water that are above ground, such as rivers, lakes, and streams.

Technical Assistance Grant (TAG) Program - A grant program that provides funds for qualified citizens' groups to hire independent technical advisors to help them understand and comment on technical decisions relating to Superfund cleanup actions.

Trust Fund - A Fund set up under the Comprehensive Environmental Response, Compensation, and Liability Act to help pay for cleanup of hazardous waste sites and to take legal action to force those responsible for the sites to clean them up.

Volatile Organic Compound (VOC) - An organic (carbon-containing) compound that evaporates (volatilizes) readily at room temperature.

Source: EPA Community Relations in Superfund: A Handbook, Appendix E, Superfund Glossary and Acronyms, pages E-1 through E-6. Prepared by the U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Washington, DC. EPA/540/R-92/009. January 1992.